

The 144 MHz EME NewsLetter

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KA6U's USA Square Journey 2021 is Finished

Never before had there been something similar: a more or less three month DXpedition on EME. After extensive planning Peter KA6U left his home in Florida early in July for his "road trip" through the Eastern USA. His main focus was on 2 m EME but he also brought equipment for 222 MHz, 70 cm and 6 m. After many EME Activations in the South-Eastern U.S. he had optimised equipment and setup procedures. Hence, he was very optimistic when starting the tour – so were many EME enthusiasts all over the world, looking forward to many new and rare grid squares – and great fun.



Peter's new RV trailer served as accommodation for most of the trip.

The station for the trip consisted of:

6 m MS/E_s: M2 3 element Yagi (8 m elevation), IC7300 Tajfun 1000
2 m MS/E_s: M2 7 element Yagi (6,5 m elevation), IC705 Tajfun 1000
2 m EME: 2X PA144-CROSS-20-6BP 20 Element - 2X10HV - IC705 Tajfun 1000
222 MHz EME: 2X Directive Systems DSEFO222-16 - Manual rotate for HV - IC705,
Q5 Transverter, Harris 800 W
70 cm EME: 4 Directive Systems DSEFO432-25 - 2 for HPOL 2 for VPOL - IC705 Tajfun 1000



All EME antennas were mounted on tripod with Yaesu G5500 AZ/EL control and the tripod secured with 4,1 meter long, 2 cm diameter circus tent stakes.

Moreover Peter had arranged for spares for generators, exciters (ICOM 9700), preamps (4 spares for 2 m, 2 spares each for other bands), spare rotators, rotator controllers, computers, 220 V auto-transformers. He did not have spare amplifiers but had some spare LDMOS transistors for the 2 m amplifier (he had already repaired an amp once).

Left: What an impressive PA tower! Peter ran all the Tajfun amps at about 700 watts out only, roughly at 70% of maximum output power, avoiding too much stress on the equipment

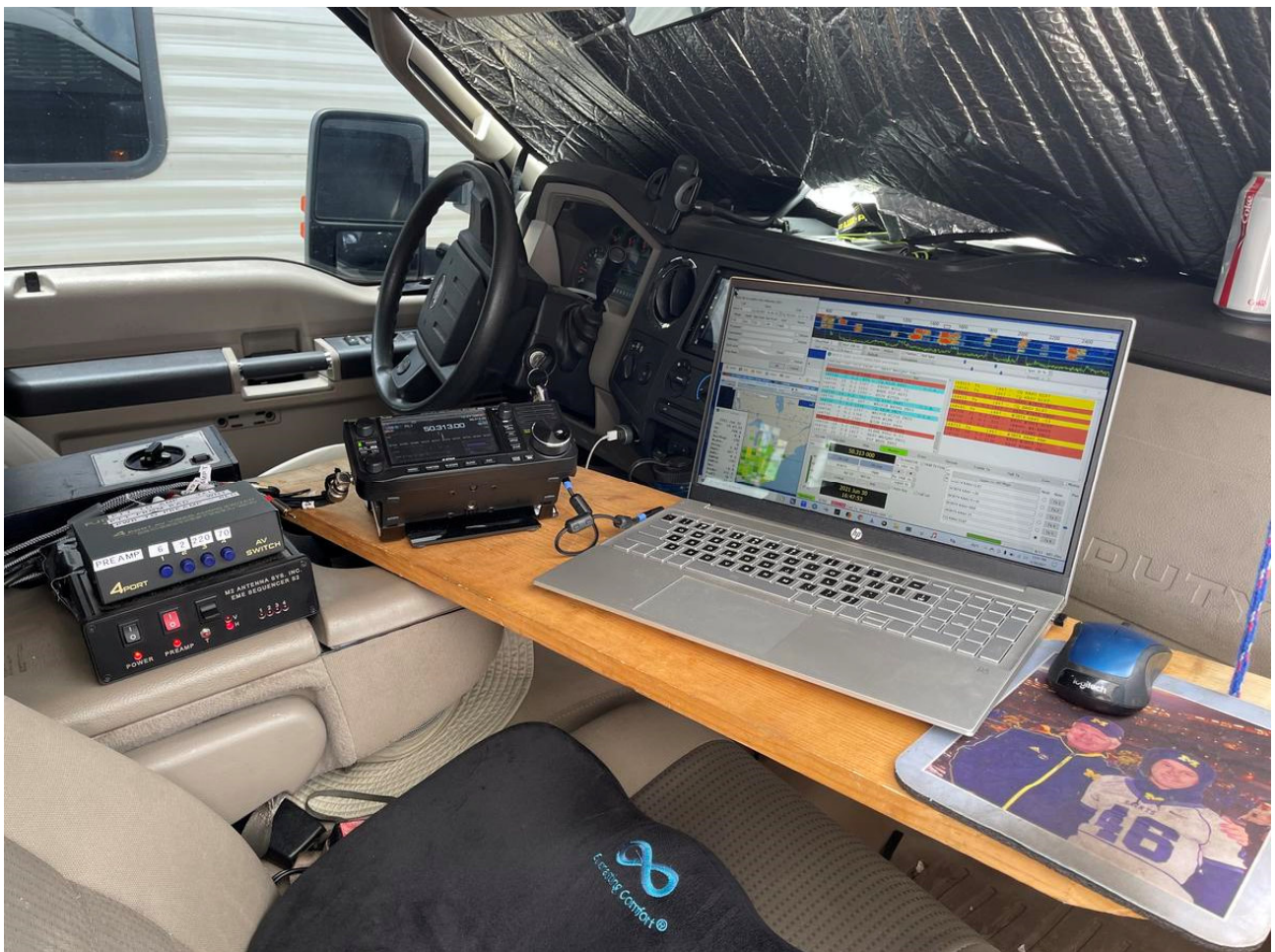
FM26BG on July 10th was the first stop on his journey starting from his home in EL87, with very challenging conditions with sun noise, New Moon and high MUF in Europe (common window was during the European afternoon). Moreover there were many cases of one-way propagation and RX/TX polarity differences. 40 QSOs were completed in 4 ½ hours on 2 m EME.



KA6U working from FM26BD right at the Atlantic Ocean in an RF quite environment

That was the start...and many successful activities followed until September 26th. During the 89 days journey Peter activated 31 unique grid squares during 36 total activations (there were some repeats for different states in same grid), mostly on 2 m EME. All activation attempts succeeded, sometimes with rescheduling due to weather events. The overall number of QSOs was 1366 which makes it an average of 44 QSOs per square. He visited 30 US states and drove 13000 km. Two activations were stopped by lightning, one by a hurricane. On the technical side everything worked without unreparable failure except for the 70 cm PA and the built-in TX/RX relay.

In these nearly three months Peter mostly was self-catering and only had six meals in a restaurant. He met many people, for example by-passers stopped and asked him what he was doing. The most common questions from the public were: "Are you a weather chaser?" (no) and "Are you talking to Aliens?" (need to think about that). Also he had 100% great interactions with the public, land-owners, Public Safety. The temperatures in the different areas he visited ranged from 2° to 35°C. Lots of wildlife was seen at the often remote working sites and luckily zero wildlife was hit during the transfers through the night. Moreover Peter also visited two historic sites in the history of HF and EME radio.



Peter's operation position in the truck. (all photos KA6U)

Peter's plans for 2022

After the end of the activity the most important question is: Will Peter do this again? His answer is: Absolutely! At the moment KA6U is in the final stages of setting up a 23 cm station. Next year he

indeed plans for another tour, crossing many new squares in four months. He will travel further West then. His focus will be more on 23 cm but he will not leave 2 m behind and maybe be QRV from some 20 squares on that band. Moreover he plans to become QRV from a number of grids this Winter in the Southern US.

On August 10th Peter started a dedicated DXpedition blog at <https://ka6u.blogspot.com> and stopped reporting on his qrz.com site. However, a lot of information is still available at qrz.com from all of his past activities. Most importantly Peter has collected a list of equipment and suppliers which can help newcomers to start EME. You'll also find many more photos from his trip there.

Upcoming DXpeditions

For more information on current and upcoming DXpeditions please have a look at www.mmmonvhf.de from where most of the information here was gathered unless noted otherwise.

Mini DXpedition to LX

Rob PE1ITR and Gerard PE1BBI will run a short DXpedition from Luxemburg from 19th to 21st November including the ARRL EME Contest. On 2 m they will use a 24 ele crossyagi, further details are not known.

Time Table

20/21 Nov	ARRL EME Contest
6 Dec	December Issue of the 144 MHz EME Newsletter ready for download
18/19 Dec	ARRL EME Contest

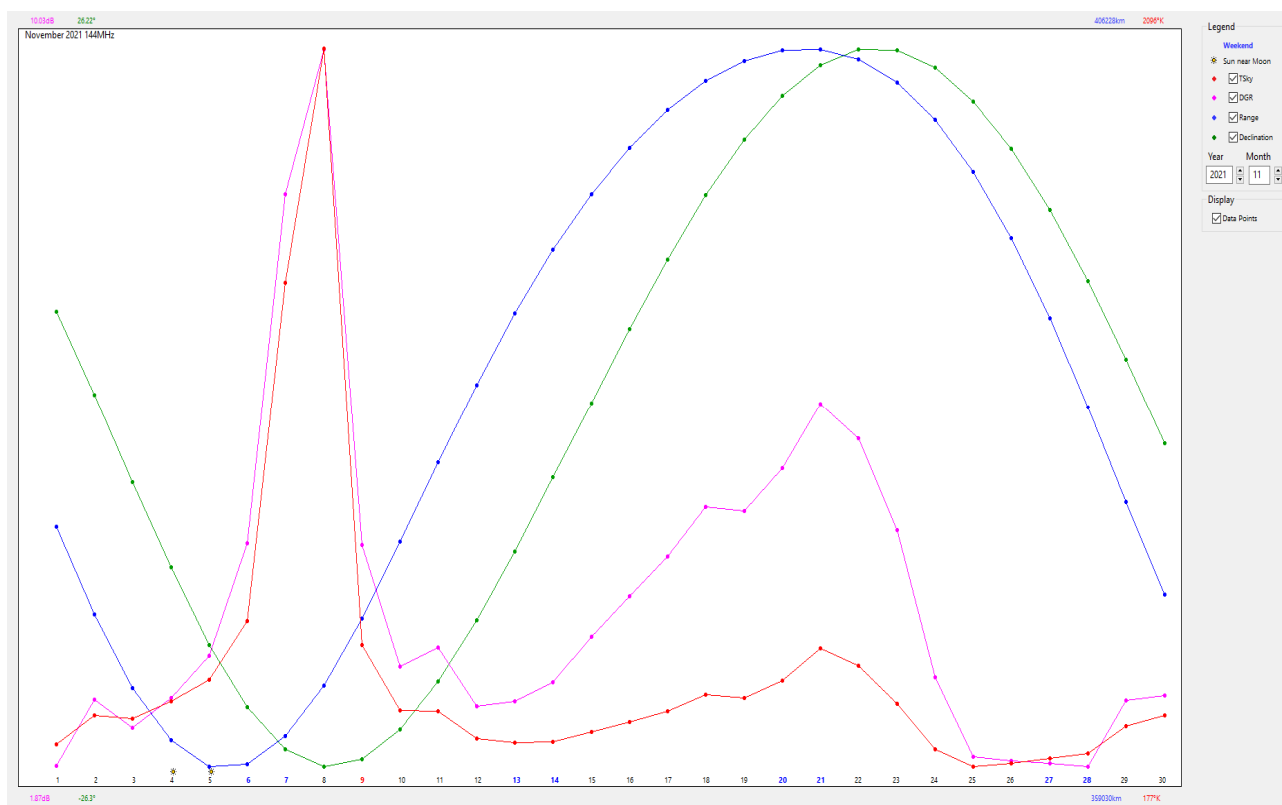
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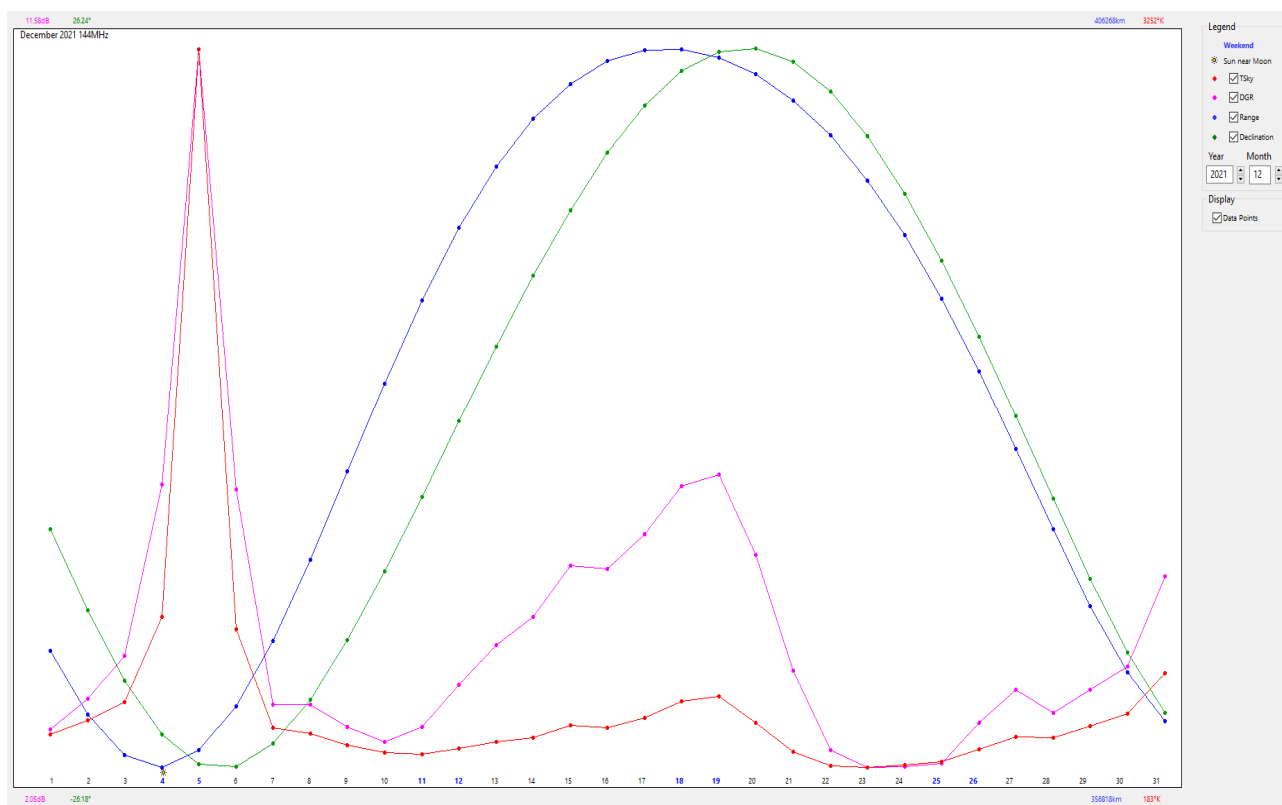
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Moon Conditions



Moon Graph November 2021



Moon Graph December 2021

(Courtesy of David GM4JJJ (sk) www.gm4jjj.co.uk/MoonSked/moonsked.htm)